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State of Utah

DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

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November 9, 1992

Mr. Gary R. Gamble
Environmental Engineer
Hecla Mining Company
Box C-8000
6500 Mineral Drive
Coeur d'Alene, Idaho 83814-1931

Dear Mr. Gamble:

Re: Review of Escalante Tailings Pond Reclamation Plan, Revision One, Hecla Mining Company, M/021/004, Iron County, Utah

The Division has completed its review of Hecla Mining Company's updated (Revision 1) Reclamation Plan, dated January 2, 1992. The revised plan was submitted to reflect additions and modifications made to the original plan as required/requested by the Division and the BLM. The revised application is conceptually complete. However, a few clarifications remain to be addressed. Hecla's satisfactory response to these remaining items should enable us to finalize our approval of this plan. Our comments are listed under the applicable Minerals Rule heading. Please format your response to these comments in a similar fashion.

R647-4-110 Reclamation Plan

110.2 Roads, highwall, slopes, drainages, pits, etc. reclaimed

(AAG)The plan describes new roads to access the borrow areas, but does not describe these roads in terms of acreage or length and width. Figure 7-1 includes the roads, but this figure does not contain a scale. Please provide an acreage description of these roads which can be used in the reclamation estimate calculations.

(HWS)The language on page 30 of the plan, which discusses road reclamation, should include retopsoiling and contouring of the roads. The language in the plan, indicates that the roads will only be ripped prior to planting.

(AAG)The Division review letter of April 29, 1991, requested that Hecla incorporate some additional erosion control measures in the proposed drainage ditches. In this latest submission, Hecla has proposed to seed and mulch the impoundment runoff ditches after their construction. In addition, Drawing #11357 indicates that portions of the basin interceptor trench and impoundment runoff ditch will be riprapped; however, no specifications/description of the riprap is contained in the text. Please provide a written description of these riprapped sections as part of the text.

(AAG)The reclamation plan states that the tailings are expected to provide a stable base for placement and compaction of the clay cap layer. This had not been confirmed by field investigation at the time of submission of this version. Have field investigations been performed which indicate that placement and compaction of the clay material on the tailings will be feasible? Please provide the details of these investigations.

110.3 Description of facilities to be left (post-mining use)

(AAG)The plan states that the main tailings pond access road will be reduced to one lane and the areas adjacent to the road will be ripped and seeded. Hecla will leave the road in a condition suitable for continued use as stated in the Plan of Operations approved by the BLM December 16, 1991. The Division recognizes and accepts this road as having a post-mining land use.

110.5 Revegetation planting program

(HWS)The operator will be required to apply the same reclamation techniques to private land, as those proposed for the BLM managed land. The techniques are described on pages 27 and 28 of the plan. In particular, fencing will also be required on private land, as will the assurance that 8 to 10 inches of topsoil/subsoil material will be maintained at the borrow areas for final reclamation. The seedmix proposed for the private land is acceptable.

R647-4-111 Reclamation Practices

111.12 Topsoil redistribution

(AAG)Hecla proposes to place four inches of topsoil over the 65 acre tailings impoundment upon final reclamation. The Division previously assumed that sufficient topsoil was available in the existing topsoil stockpile for this reclamation. Please provide an estimate of the volume of topsoil currently stockpiled by Hecla to verify this assumption.

R647-4-113 Surety

(AAG)According to Table 11-1 of the reclamation plan, Hecla estimates that approximately 90.5 acres, or less, will need to be disturbed to provide the amount of clay material (approximately 52,400 cubic yards) needed for reclamation of the tailings. Hecla believes that a sufficient amount of subsoil material needed for reclamation of the tailings (approximately 122,300 cubic yards) can be recovered from the same areas disturbed for recovery of the clay material. Because of the possibility that more area will need to be disturbed in order to recover sufficient materials for construction of the tailings cap, the Division has used the previous 120 acre estimate of borrow area disturbance in calculating the revised reclamation surety estimate.

(AAG)The previous Division estimate did not include costs for incorporating mulch into the subsoil and topsoil layers of the tailings cap. An oversight in a previous mathematical error has also been corrected. This estimate has been revised to include these items. The new surety estimate now totals $648,000 in 1997 dollars.

(AAG)Hecla has proposed a two phase surety reduction. Phase one of the decrease would occur after the clay, subsoil, and topsoil have been emplaced and the hay disced into the subsoil and topsoil layers. This first decrease would be for the full amount estimated for these activities. Phase two of the decrease would be after the ripping, ditch construction and seeding work has been completed. This second decrease would be for 75% of the amount estimated for these activities.

The proposed (Phase one) decrease is acceptable to the Division. This will not, however, relieve Hecla of posting a surety for the entire amount initially. The second proposed decrease, as stated, is not acceptable to the Division. A decrease in the surety for the full cost of the ripping and ditch construction alone, is acceptable to the Division. Established surety release procedure requires a formal written request from the operator. A subsequent field inspection is conducted by the Division to confirm the adequacy of the reclamation work performed by the operator. The projected cost associated with a subsequent reseeding effort would be retained by the Division until final release of the surety was warranted.

If you have any questions with regard to these comments, please contact me, Holland Shepherd or Tony Gallegos of my staff. Thank you for your continued patience and cooperation in the completion of the permitting action.

Sincerely,

D. Wayne Hedberg
Permit Supervisor
Minerals Regulatory Program

jb
Attachment
cc: Kiran Bhayani, DWQ
Arthur L. Tait, BLM, Beaver River RA
M021004.rev

RECLAMATION ESTIMATE

Hecla Mining Company

Escalante Silver Mine - Mill Tailings Facility Iron County

M/021/004 last revision 11/10/92

Prepared by Utah State Division of Oil, Gas & Mining

Reclamation Details

-All structures and equipment to be removed from the site (1.5 acre EST)
-Tailings covered by: 6" clay, 14" subsoil, 4" topsoil (65 acres)
-Hay incorporated into tailings subsoil & topsoil caps (2-3,000 lb/acre)
-Road to tailings reduced via ripping & seeding(5,800' x 12'= 1.6 acre)
-Impoundment runoff ditch constructed around tailings cap (7,200')
-Borrow areas ripped, topsoiled & seeded (ESTIMATED 120 acres)
-Roads to borrow areas ripped, water barred & seeded (5 acre EST)
-Rip topsoil stockpile area & drill seed (9 acre ESTIMATE)
-Monitor groundwater wells for 4 years after reclamation (quarterly)
-Fence maintenance 3 years (7,900 + ~10,000 LF, quarterly)
-Areas revegetated via drill seeding unless impractical (=>hand seeding)
-Disturbed acreage = office+tailings+borrow+roads+stockpile= 202

Description	Amount		$/Unit	Cost-$
Structure demolition/removal	sum-ASSUMED		5,000	5,000
Tailings clay cap *	52,433	CY	2.92	153,104
Tailings subsoil cap *	122,344	CY	1.42	173,728
Tailings topsoil cap *	34,955	CY	1.93	67,463
Disc hay into tailings soils *	65	acre	250	16,250
Ripping tailings road (0.40 mph) **	1.6	acre	603	965
Runoff ditch construction **	7,200	ft	0.32	2,304
Ripping borrow areas (0.60 mph) **	120	acre	407	48,840
Ripping borrow roads(0.50 mph) **	5	acre	485	2,425
Rip topsoil stockpile area**	9.0	acre	407	3,663
Reseed all disturbed areas	202	acre	290	58,580
Monitor groundwater (quarterly)	4	yr	1,200	4,800
Fencing-borrow areas(LF estimated)	10,000	LF	1.00	10,000
Mobilization	5	units	1,000	5,000
Fence maintenance (quarterly)	3	yr	400	1,200
	SUBTOTAL			553,323
	+ 10% CONTINGENCY			55,332
		SUBTOTAL		608,655
	+5yr ESCAL (1.27%)			39,644
	TOTAL			648,299
	ROUNDED TOTAL IN 1997-$			**$648,000**
Average cost per acre =	*3,208*	*$/acre*		

* Phase I Reduction

** Phase II Reduction